

**To:** Vann, Bradley[Vann.Bradley@epa.gov]  
**From:** McKernan, John  
**Sent:** Thur 5/28/2015 6:11:43 PM  
**Subject:** RE: West Lake Landfill - Amended language for Phase 1D GCPT/Sonic work plan addendum

Hi Brad-

Speed of response due to tech support load is stretching some response times out about 1 wk. Apologies, looks like this took 3 business days to get to.

Chatting would be good so we can discuss some of our products and Region's needs at the site.

Thanks,

John

**From:** Vann, Bradley  
**Sent:** Thursday, May 28, 2015 2:08 PM  
**To:** McKernan, John  
**Subject:** RE: West Lake Landfill - Amended language for Phase 1D GCPT/Sonic work plan addendum

John,

Ship already sailed on this one (so to speak). I'll call you later and get you up to speed on a few parts.

Thanks,

Bradley Vann - Remedial Project Manager

U.S. Environmental Protection Agency

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**From:** McKernan, John

**Sent:** Tuesday, May 05, 2015 2:14 PM

**To:** Vann, Bradley

**Subject:** RE: West Lake Landfill - Amended language for Phase 1D GCPT/Sonic work plan addendum

Hi Brad-

Please provide supporting documentation for this request. Meeting notes from the January 23<sup>rd</sup> meeting, and the original EPA comment page (or memo) that EMSI is replying to with the language below would be helpful. If there is a work plan for phase 1D, please send it (or the weblink) to it as well. This will help us provide a more substantive review of the attached maps and EMSI response language.

Thanks in advance,

John

**From:** Vann, Bradley

**Sent:** Thursday, April 30, 2015 5:56 PM

**To:** Kappelman, David; Kiefer, Robyn V NWK; McKernan, John

**Subject:** West Lake Landfill - Amended language for Phase 1D GCPT/Sonic work plan addendum

All,

EMSI is revising their draft GCPT addendum (second version) per our individual discussions over the past two weeks when I called each of you. Language below was provided to EPA and MDRN in response to their questions regarding change in rationale for sampling RIM (expanded beyond just for placement of isolation barrier), and wanting to understand how these 14 locations were selected with options for more if RIM is identified, as the state was not part of that conversation. The parties' contractor, EMSI, has also developed 2 figures (attached) which demonstrate how the new locations south of the existing points sample were distributed within the low areas (see 1971) that could have been filled in 1973 and/or along the old quarry road (see 1975). I've asked them to also snap in the topographic elevation layers for these figures in the next (and hopefully final) revised version. There are 3 responses below. First one to an EPA comment and next 2 to MDNR comments that has language to be incorporated into the revised addendum. We expect with this added language the addendum should be consistent in meeting the intent of our technical discussion held January 23 with regards to rationale for RIM characterization (or areas between OUI and the former North Quarry and the locations to tighten up data to the west).

Also for your awareness, the parties have secured the use of the GCPT contractor tentatively for May 11 (assume EPA approves the revised document next week) and I have secured OSC oversight throughout the entire action. This will allow for EPA to approve any field decision with EMSI in the field for additional borings or step outs if needed. We have also directed them to perform all borings along the former quarry road and high wall first, so decisions and field coordination can be made regarding sampling in the former North Quarry if needed to avoid any further mobilizations.

Assuming the parties send me the revised addendum on Monday, I have been tasked by my management to turn it around in 1 day. Naturally, I would not expect you to do the same. So if you can look at these comment responses below and respond to me by email COB Monday (or Tuesday at latest) that you concur this additional language meets both the intent of this fieldwork effort with regards to evaluation of RIM for isolation barrier decision, and selection of the additional locations as we all discussed during our January technical meeting. It would be immensely helpful. Please call me if you have any questions. Also please note this effort is definitely not the remedy decision part, which is being addressed separately in both areas 1 and 2 where EPA has requested further RIM sampling and is being negotiated with parties next Tuesday.

Thanks,

Bradley Vann - Remedial Project Manager

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***Response to EPA:*** *The Addendum has been revised to include discussions of the intent and*

*objective of the Phase 1D investigation to complete the bounding of RIM in the southwestern and western portions of Area 1. The text has also been revised to*

*indicate that if needed, additional borings may be drilled to complete the delineation of the extent of RIM. The text has been revised to clearly state that samples will be sent to the laboratory in batches rather than at the end of the drilling and sampling phase of work.*

*The prior discussion of the potential use of the data for performance of risk calculations has been expanded to indicate that the results of the investigations are anticipated to provide sufficient data for statistical based estimates of reasonable maximum exposure (RME) concentrations (i.e., 95% upper confidence limits) that may occur from exposures to RIM in Area 1 or exposures to RIM located outside of a possible thermal isolation barrier that may be affected by a subsurface smoldering event.*

**Response to MDNR:** *The proposed additional GCPT/soil boring locations were developed in consultation with EPA and the USACE during a technical working session that occurred at EPA on January 23, 2015. The locations of the soil borings are based on the results of the prior investigations and consideration of the configuration of Area 1 solid waste management unit and the adjacent/overlying North Quarry solid waste management unit. The proposed additional soil borings include three borings (1D-7, 1D-9 and 1D-14) located outside of the extent of waste materials placed circa 1973 (i.e., outside the intersection of the 1971 and 1975 topographic surfaces as determined from historical aerial photography) but north of the North Quarry high wall. Assuming these borings do not contain RIM, data from these locations will be used to*

*verify the conclusion that the outer extent of potential RIM occurrences can be defined by the intersection of the 1971 and 1975 topographic surfaces.*

***Further Response to MDNR:*** *The selection of the fourteen boring locations was the result of a collaborative and*

*interactive discussion between EPA, USACE, EPA-ORD, and Bridgeton Landfill LLC and its consultants. Items considered during these discussions included but were not necessarily limited to the following:*

- ☐ *Identified gaps in the existing Phase 1 data;*
- ☐ *Interpretation of the 1971 and 1975 aerial photography, associated topographic surfaces, and the relationship of these surfaces to the reported disposal of radioactive materials that occurred in the third quarter of 1973,*
- ☐ *The extent of the solid wastes associated with Area 1 and relationship between Area 1 waste materials and the waste materials associated with the North Quarry portion of the Bridgeton Landfill; and*
- ☐ *The relationship between the rock quarrying activities and landfilling activities, particularly in the 1973 and 1974 time frames, among other factors.*

*All of these factors were considered and discussed during the evaluation of need and potential locations for additional soil borings. The locations were selected based on review of all of the available information, discussion of factors and concerns raised by various members of the technical working group, and best professional judgment regarding the appropriate scope for this limited focused investigation.*

